

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph beginning at page 22, line 28, ending at page 23, line 4 with the following amended paragraph:

The synchronizing function can further create relationships between each of the data modules 40, 42, 44, and 46. For example, a review of previously captured data can be performed on all data modules 40, 42, 44, and 46 individually. In addition, executing a function on one of the data modules can command a corresponding action on other of the data modules. For example, the controller ~~20~~50 can be configured to execute the snapshot function in the first data module 40 to momentarily pause the display of data while data continues to be collected. This action is broadcast to the other data modules (the second data module 42, the third data module 44, and the fourth data module 46), and they too momentarily pause their displays of the data while data continues to be collected.

Please replace the paragraph on page 23, lines 28-31, with the following amended paragraph:

In accordance with further aspects of the present invention, individual data modules can be configured to essentially ignore synchronization directives from the controller ~~20~~50. This achieves necessary flexibility for controlling which data modules act in which manner to collect data.

Please replace the paragraph on page 24, lines 7-19, with the following amended paragraph:

To further clarify certain aspects of the synchronization function, the synchronization function can operate in two primary configurations. There can be an event-based synchronization function that is triggered upon the occurrence of one or more events. For example, a user clicking a synchronization button, as described above, is one form of an event that triggers synchronization. Other events, such as time elapsed, receipt of certain data outputs, or other events can trigger the synchronization function. Alternatively, the synchronization can operate based on an active search mode. Such a

configuration was also described above, wherein the occurrence of activation of a function, such as snapshot or suspend, at one data module broadcasts an instruction for other data modules to carry out the same function. In other words, the synchronization occurs on a subscription basis, ~~where~~where those data modules that subscribe to a selected controller will act in accordance with instructions broadcast to the subscribers.

Please replace the paragraph beginning at page 25, line 32, ending at page 26, line 5 with the following amended paragraph:

The user can then activate the snapshot function on the first data module 40 and the second data module 42. When synchronized in this manner, the snapshot function will simultaneously ~~cause a pause in acquisition and the displays~~ in the first data module 40 and the second data module 42, achieving synchronization of data analysis at that point in time. Similarly, the user can activate the suspend function, ~~and so that~~ the third data module 44 and fourth data module 46 will simultaneously cease data collection and display updates until further notice.

Please replace the paragraph on page 26, lines 7-23, with the following amended paragraph:

As with the previous embodiment, the synchronizing function can be implemented for ~~all the~~ data modules that include controllers 60, 62, 64, and 66 and are coupled with the dynamic system 20 ~~at one time that include a controller 60, 62, 64, 66~~. Again looking at the snapshot function, the snapshot function can be configured to operate on all data modules 40, 42, 44, and 46 in the dynamic system 20. Then, when activated, the display of data collection halts simultaneously at all data modules 40, 42, 44, and 46. In operation, when one of the data modules, for example the first data module 40, activates the snapshot function, if any of the other data modules 42, 44, and 46 that are connected with the controller network 68 are configured to activate a snapshot function and are likewise configured to receive and act upon synchronizing function directives to synchronize, then such other data modules 42, 44, and 46 will likewise activate their snapshot functions. Thus, the synchronizing function again provides the user with the ability to control each of the data modules 40, 42, 44, and 46 in the

dynamic system 20. Although, ~~however~~ in this embodiment the controller is in the form of a distributed configuration made up of the first controller 60, the second controller 62, the third controller 64, and the fourth controller 66. ~~However~~, the result is the same, in that synchronized function calls relating to data collection and review can be executed.

Please replace the paragraph beginning at page 26, line 25, ending at page 27, line 3 with the following amended paragraph:

In the distributed configuration, the controllers 60, 62, 64, and 66 that support the synchronizing function create relationships between each of the data modules 40, 42, 44, and 46. As in the previous embodiment, a review of previously captured data can be performed on all data modules 40, 42, 44, and 46 individually. In addition, executing a function on one of the data modules can command a corresponding action on ~~other~~ any of the other data modules. When the snapshot function in the first data module 40 momentarily pauses the display of data while data continues to be collected, the action can be simultaneously broadcast to the other data modules (the second data module 42, the third data module 44, and the fourth data module 46). Upon receipt of the synchronize instructions, each of the remaining data modules (the second data module 42, the third data module 44, and the fourth data module 46) also momentarily pauses their displays of the data while data continues to be collected.

Please replace the paragraph on page 27, lines 5-18 with the following amended paragraph:

Also operational in the distributed controller embodiment[[,]] is the ability for the user to initiate a review of the data utilizing a synchronized scroll function. Activating the scroll function in the first data module 40 enables the user to review the data history made available by the snapshot function. Using the scroll function (scrolling back using a scroll bar, for example) on the first data module 40, results in not only a review of the data on the first data module 40, but also a simultaneous review is broadcast to other selected data modules, allowing the coordinated review of data recorded simultaneously at various points within the dynamic system 20. More specifically, the scroll function operating on the first data module 40 scrolls through data on the first data module 40.

Simultaneously, the data on the second data module 42, the third data module 44, and the fourth data module 46 is also scrolled through. The display of data on each data module 40, 42, 44, and 46 corresponds to the same period in time, thus comparisons can be made between each of the data modules 40, 42, 44, and 46 at comparable time periods.